Montana Board of Oil and Gas Conservation
Environmental Assessment

Operator: EOG Resources, Inc.
Well Name/Number: Candee 4-04055H
Location: NE SW Section 4 T25N R53E
County: Richland**, MT; Field (or Wildcat)** Wildcat

Air Quality

(possible concerns)
Long drilling time: No, 25-30 days drilling time.
Unusually deep drilling (high horsepower rig): Triple derrick rig to drill a single lateral horizontal Bakken Formation well, 13,725'MD/9,178'TVD.
Possible H2S gas production: Slight chance of H2S.
In/near Class I air quality area: No not in a Class I air quality area.
Air quality permit for flaring/venting (if productive): Yes, DEQ air quality permit required under rule 75-2-211.

Mitigation:
X Air quality permit (AQB review)
X Gas plants/pipelines available for sour gas
__ Special equipment/procedures requirements
__ Other:_____

Comments: Existing gas pipelines in the area.

_____

Water Quality

(possible concerns)
Salt/oil based mud: Yes, intermediate casing string hole will be drilled with oil based drilling fluids. Horizontal Bakken Formation lateral will be drilled with brine water. Surface casing hole will be drilled with freshwater and freshwater mud.
High water table: No high water table anticipated at this location.
Surface drainage leads to live water: No, closest drainages are unnamed ephemeral tributaries to West Charley Creek, about 1/16 of a mile to the south and 1/8 of a mile to the north from this location.
Water well contamination No, nearby water wells. All water wells are all less than 150' depth and 1 mile away from this location. Surface casing will be set to 970' and cemented to surface.
Porous/permeable soils: No, sandy clay soils.
Class I stream drainage: No, Class I stream drainages in the area of review.

Mitigation:
X Lined reserve pit
X Adequate surface casing
__ Berms/dykes, re-routed drainage
__ Closed mud system
__ Off-site disposal of solids/liquids (in approved facility)
__ Other: _____

Comments: 970' of surface casing will be set and cemented to surface, below freshwater zones in adjacent water wells and covering the Fox Hills aquifer. Adequate surface casing and operational BOP equipment will prevent problems any problems.

Soils/Vegetation/Land Use

(possible concerns)
Steam crossings: None anticipated.

High erosion potential: No high erosion potential, requires a moderate cut, up to 12.6' and moderate fill, up to 13.6', required.
Loss of soil productivity: None, location to be restored after drilling well, if nonproductive. If productive unused portion of the drillsite will be reclaimed.
Unusually large wellsite: No, large well site 450'X330'
Damage to improvements: Slight, surface use appears to be grazing land.
Conflict with existing land use/values: Slight

Mitigation
__ Avoid improvements (topographic tolerance)
__ Exception location requested
_X_ Stockpile topsoil
__ Stream Crossing Permit (other agency review)
_X_ Reclaim unused part of wellsite if productive
__ Special construction methods to enhance reclamation
__ Other _____

Comments: Access will be over county road, #314 and existing well access road. An access road of about 188' will be constructed off the existing well access road. Oil based invert drilling mud will be recycled. Mud solids and cutting will be buried in the lined reserve pit. Completion fluids will be hauled to a commercial Class II disposal well.

Health Hazards/Noise

(possible concerns)
Proximity to public facilities/residences: Nearest residences are about 0.75 of a mile to the southeast and all other residences are further than one miel from this location.
Possibility of H2S: Slight chance of H2S.
Size of rig/length of drilling time: Triple drilling rig 25 to 30 days drilling time.

Mitigation:
_X_ Proper BOP equipment
__ Topographic sound barriers
__ H2S contingency and/or evacuation plan
__ Special equipment/procedures requirements
__ Other:_____

Comments: Adequate surface casing cemented to surface with an operational BOP stack should mitigate any problems. Noise should not be a problems, sufficient distance from residence to rig should mitigate this.

Wildlife/recreation

(possible concerns)
Proximity to sensitive wildlife areas (DFWP identified): None identified.
Proximity to recreation sites: None identified.
Creation of new access to wildlife habitat: No
Conflict with game range/refuge management: No
Threatened or endangered Species: Species identified as threatened or endangered are the Pallid Sturgeon, Interior Lease Tern, Whooping Crane and Piping Plover. Candidate species are the Greater Sage Grouse and the Sprague's Pipit. NH tracker website lists no species of concern in this Township and Range.

Mitigation:
__ Avoidance (topographic tolerance/exception)
__ Other agency review (DFWP, federal agencies, DSL)
__ Screening/fencing of pits, drillsite
__ Other: _____

Comments: No concerns on private surface grazing lands. There maybe species of concern that maybe impacted by this wellsite. We ask the operator to consult with the surface owner as to what he

would like done, if a species of concern is discovered at this location. The Board of Oil & Gas has no jurisdiction over private surface lands.

Historical/Cultural/Paleontological

(possible concerns)
Proximity to known sites: None identified.
Mitigation
__ avoidance (topographic tolerance, location exception)
__ other agency review (SHPO, DSL, federal agencies)
__ Other: _____
Comments: Private surface grazing land. There maybe possible historical/cultural/paleontological sites that maybe impacted by this wellsite. We ask the operator to consult with the surface owner as to his desires to preserve these sites or not, if they are found during construction of the wellsite. The Board of Oil & Gas has no jurisdiction over private surface lands.

Social/Economic

(possible concerns)
__ Substantial effect on tax base
__ Create demand for new governmental services
__ Population increase or relocation
Comments: No concerns. .

Remarks or Special Concerns for this site

Bakken Formation single lateral horizontal well, 13,725'MD/9,178'TVD.

Summary: Evaluation of Impacts and Cumulative effects

No long term impacts expected from the drilling of this well. Some short term impacts will be apparent.

I conclude that the approval of the subject Notice of Intent to Drill (does/**does not**) constitute a major action of state government significantly affecting the quality of the human environment, and (does/**does not**) require the preparation of an environmental impact statement.

Prepared by (BOGC): /s/Steven Sasaki
(title:) Chief Field Inspector
Date: October 16, 2011

Other Persons Contacted:
_____
_____
(Name and Agency)
Montana Bureau of Mines and Geology, Groundwater Information Center website.
(subject discussed)
Water wells in Richland County
(date)
October 16, 2011

US Fish and Wildlife, Region 6 website

(Name and Agency)
ENDANGERED, THREATENED, PROPOSED AND CANDIDATE SPECIES MONTANA COUNTIES, Richland County
(subject discussed)

October 16, 2011
(date)

Montana Natural Heritage Program Website (FWP)
(Name and Agency)
Heritage State Rank= S1, S2, S3, T25N R53E
(subject discussed)

October 16, 2011
(date)

If location was inspected before permit approval:
Inspection date: _____
Inspector: _____
Others present during inspection: _____